



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/761,370

01/22/2004

David Wallach

WALLACH=27A

3756

1444 7590 07/26/2007  
BROWDY AND NEIMARK, P.L.L.C.  
624 NINTH STREET, NW  
SUITE 300  
WASHINGTON, DC 20001-5303

EXAMINER

POPA, ILEANA

ART UNIT

PAPER NUMBER

1633

MAIL DATE

DELIVERY MODE

07/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/761,370	Applicant(s) WALLACH ET AL.	
	Examiner Ileana Popa	Art Unit 1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 17-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in the prior Office Action.
2. Claims 2-16 have been cancelled. Claims 1, 17, and 19 have been amended.  
Claims 1 and 17-19 are pending and under examination.
3. The rejection of claim 1 and 17 under 35 U.S.C. 112, second paragraph, as being indefinite, is withdrawn in response to Applicant's amendments to the claims filed on 04/30/2007.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yongan (PhD thesis, published in OCLC's Experimental Thesis Catalog and also issued on microfilm in 1966; Abstract), in view of both Yongan et al. (Mol Cell Biol, March 1<sup>st</sup>, 1998, 18: 1601-1610) and Ellis et.al. (J Immunol, 1995, 155: 925-937).

Yongan et al. teach that the data from their paper is from the PhD thesis submitted by Yongan in 1996 (p. 1602, column 1, third full paragraph). Therefore, via

Art Unit: 1633

Yongan et al., in the 1996 PhD thesis, Yongan teaches identification of Fip-2, a novel protein containing multiple leucine zipper domains, which is one of the cellular targets of the adenoviral protein Ad E3-14.7K, an inhibitor of TNF- $\alpha$ -induced apoptosis (Abstract, p. 1602, column 1, p. 1606, column 2). Yongan teaches that Fip-2 can utilize interaction with induced cellular factors to activate apoptosis (p. 1608 bridging p. 1609). Yongan does not teach anti-Fip-2 antibodies. However, it would have been obvious to one of skill in the art, at the time the invention was made, to raise antibodies directed to Fip-2, with a reasonable expectation of success. One of skill in the art would have been motivated to do so in order to study the interaction of Fip-2 with the cellular proteins involved in TNF- $\alpha$ -induced apoptosis. By reading Yongan, one of skill in the art would have known that antibodies could be used to study interaction between intracellular proteins involved in intracellular signaling and their co-localization inside the cell (p. 1603, column 2, p. 1606, column 1). It is noted that the specification teaches that the leucine zipper domains and the C-terminus of Rap-2 (encoded by SEQ ID NO: 4) and Fip-2 are conserved (p. 14, paragraph 0019 and p. 15, paragraph 0021) and therefore, anti-Fip-2 antibodies recognizing these domains would necessarily be specific for Rap-2 (claim 1). The limitations of monoclonal and chimeric antibodies (claims 17 and 18) and of a detectable label (claim 19) are not innovative over the prior art, since the prior art teaches such antibodies or detectable labels (see for example Ellis et al., Abstract, p. 926, columns 1 and 2). One of skill in the art would have been motivated to use a monoclonal antibody in order to study the function of specific domains in Fip-2 function. One of skill in the art would have been motivated to use a chimeric antibody to obtain a

Art Unit: 1633

humanized antibody that could be used for therapy in humans. One of skill in the art would have been motivated to use a label in order to localize the protein inside the cell. It is noted that all these techniques are routine in the art, and therefore, one of skill in the art would have been expected to have a reasonable expectation of success in obtaining these antibodies. Thus, the claimed invention was *prima facie* obvious at the time the invention was made.

6. No claim is allowed. No claim is free of prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ileana Popa whose telephone number is 571-272-5546. The examiner can normally be reached on 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1633

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ileana Popa, PhD

/Joseph Woitach/  
Joseph Woitach  
SPE 1633